

# platts US West Coast Transportation Fuels: A World Apart

Assessing the shifting fundamentals of a unique market

April 12–13, 2005 • Grand Hyatt Long Beach • Long Beach, California

# California's Petroleum Market Issues and Outlook

Pat Perez, Manager

Transportation Fuels Office
Fuels and Transportation Energy Division
California Energy Commission

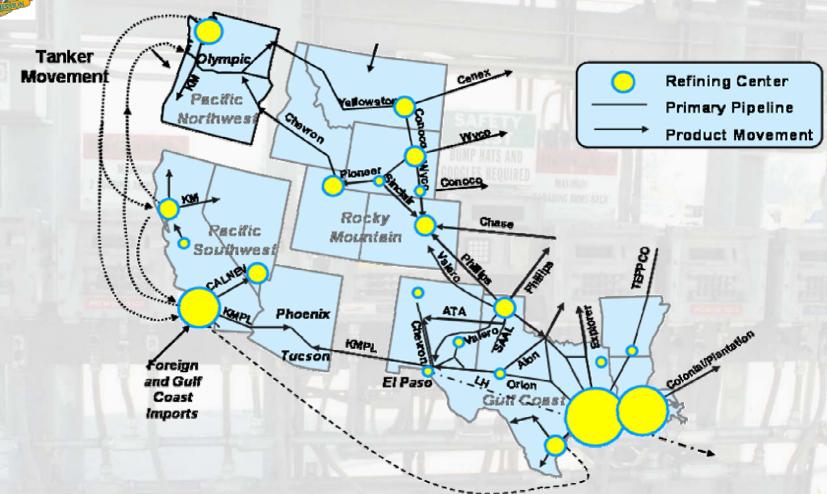


# Issues and Outlook

- Supply & Sources
- In-State Production & Imports
- California as a Fuel Island
- Pipeline & Marine Infrastructure
- Gasoline & Diesel Outlook

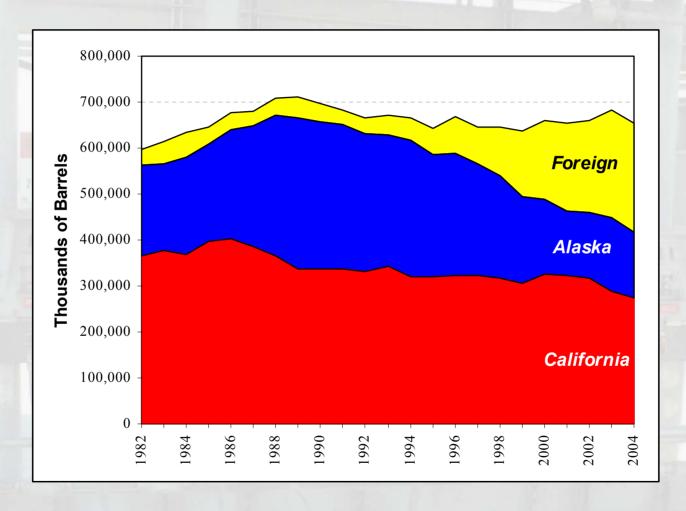


### California Crude Oil/Product Deliveries





### Sources of Crude Oil for California Refineries





# California Refineries

2004 EIA RANK	Refinery Name	Capacity (Barrels)
13	BP West Coast Products LLC, Carson Refinery	260,000
14	Chevron U.S.A. Inc., El Segundo Refinery	260,000
21	Chevron U.S.A. Inc., Richmond Refinery	242,901
39	Tesoro Refining & Marketing Company, Golden Eagle (Avon/Rodeo) Refinery	166,000
46	Shell Oil Products US, Martinez Refinery	154,900
50	ExxonMobil Refining & Supply Company, Torrance Refinery	149,000
53	Valero Benicia Refinery	144,000
55	ConocoPhillips, Wilmington Refinery	133,100
62	Shell Oil Products US, Wilmington Refinery	98,500
69	Valero (Ultramar) Wilmington Refinery	76,000
75	ConocoPhillips, Rodeo San Francisco Refinery	73,200
81	Flying J, Bakersfield Refinery	66,000
98	Paramount Petroleum Corporation, Paramount Refinery	50,000
106	ConocoPhillips, Santa Maria Refinery	41,800
112	Edgington Oil Company, Long Beach Refinery	26,000
113	Kern Oil & Refining Company, Bakersfield Refinery	25,000
116	San Joaquin Refining Company Inc., Bakersfield Refinery	24,300
132	Greka Energy, Santa Maria Refinery	9,500
134	Lunday Thagard, South Gate Refinery	8,500
138	Valero Wilmington Asphalt Refinery	5,900
143	Tenby Inc., Oxnard Refinery	2,800



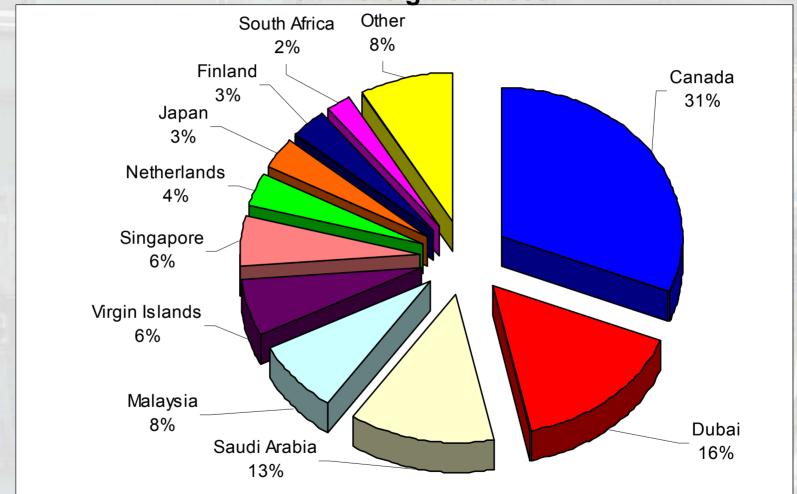
# California – National Comparison

	1985	2003*
National – Number of Refineries	223	145
National – Crude Oil Capacity (barrels)	16,137,000	16,757,000
National – Refinery Utilization Rate	77.6%	92.5%
California – Number of Refineries	35	21
California – Crude Oil Capacity (Barrels)	2,457,900	2,011,407
California – Refinery Utilization Rate	70%	92%

<sup>\*</sup>Data for 2004 was not available at the time of this presentation.



2003 Gasoline and Blendstocks Imports into California From Foreign Sources





### California - A Fuel Island?





#### California as a Fuel Island

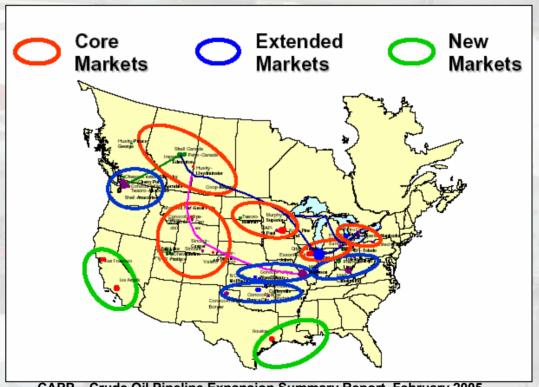
# "Your regulations make California a unique island, so when you raise prices, only a few refineries can supply you."

John Felmy, American Petroleum Institute, via conference call. Attorney General Panel Discussion, March 12, 2004, Los Angeles, California.

- Structural and regulatory changes limit California's gasoline and diesel importing options
- Refineries located in Eastern Canada, the Netherlands, and the Caribbean are some of a limited number of facilities currently producing CARBOB – time and distance consideration to replenish inventories
- Unplanned refinery maintenance or pipeline disruptions can cause significant wholesale and retail price spikes – particularly when in-state inventories are low
- High quality alkylates, or "near-BOBs" (blendstocks close in specification to CARBOB) are now sought on the world market



# Outlook: California & USGC Identified as **New Crude Oil Markets by Canada**



CAPP - Crude Oil Pipeline Expansion Summary Report, February 2005

"Over the next 10 years, the aggregate need for new [Canadian] pipeline capacity is forecast to be about 600,000 barrels [of crude oil] per day." - CAPP Crude Oil Pipeline Expansion Summary Report, February 2005



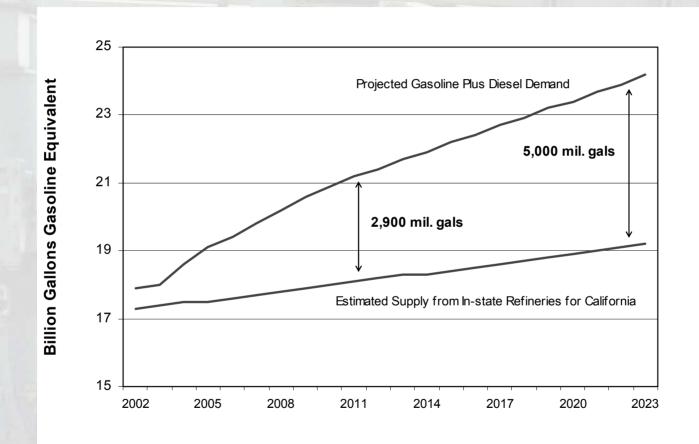
# Canada: New Crude Oil Source for California?

- The Canadian Association of Petroleum Producers (CAPP) is working with oil producers to develop a new pipeline out of Western Canada
- CAPP: Western Canada will have significant crude oil supply growth
- Canada's oil production will exceed their take-away capacity by 2007/2008





### California - Projected Demand





# Outlook: California Common Carrier Pipeline System

- Kinder Morgan LP operates Common Carrier Pipeline systems in California, Nevada and Arizona
- California refineries currently supply 61% of Arizona's and 100% of Nevada's fuels
- Kinder Morgan completed interconnection with the Longhorn Pipeline from Houston to El Paso.
- Kinder Morgan is moving forward with permitting and right-of-way acquisition to expand their pipeline capacity from El Paso to Tucson as well as from Tucson to Phoenix. Estimated completion is the first quarter of 2006
- California impact: Kinder Morgan pipeline expansions could lessen the impact of Arizona's rapid growth on California supply, as Gulf Coast products begin to reach Arizona in greater volume



# Outlook: Northern California's Marine Infrastructure

- The common practice of tanker cargo transfer employed in San Francisco Bay due to depth limitations is known as "lightering"
- Vessels that cannot directly access marine terminals due to constrained channels, such as the Pinole Shoal, anchor in a designated lightering zone in South San Francisco Bay. Cargos are transferred to barges or smaller vessels that can navigate the constrained channels and access berths at the marine terminals
- Lightering incurs additional costs, inefficiencies, and time delays that would be avoided if channel depths allowed direct access to marine terminals Additional oil spill risk is also created
- · California impact: dredging could reduce these impacts of lightering.



# Outlook: Southern California's Marine Infrastructure

- Importers and exporters of petroleum products in the Ports of Los Angeles and Long Beach increasingly confront local issues associated with land use and environmental and safety concerns
- Proximity of urban development creates pressure to classify petroleum activities at these ports as an "inconsistent use" in area risk management plans
- The trend for both of these ports is toward a preference for other types of movement, particularly containerized goods, and away from petroleum products
- Officials from the Port of Los Angeles stressed that they do recognize the need to plan for increasing imports of crude oil and petroleum products
- California impact: Petroleum infrastructure at marine receiving docks needs to be expanded to accommodate the anticipated growth of crude oil and refined product imports. If not, supply will be constrained.



#### **Outlook: Wholesale Distribution**

- Following MTBE phase-out in 2003, common carrier pipeline Kinder Morgan did not allow the shipment of ethanol-blended gasoline. This required:
  - Installation of inline ethanol-blending equipment at the truck loading rack
  - Building of ethanol storage tanks at terminals
  - Addition of short-length pipelines or rail spurs to receive ethanol at the terminal
  - Some terminals stopped handling gasoline upon the introduction of RFG Phase III gasoline in California
  - CARBOB replaced RFG at most terminal storage locations in the state
- Kinder Morgan expanding terminal storage capacity in Carson, California will add 800,000 barrels of capacity for jet fuel, gasoline, and diesel. Four tanks should be in service by the end of 2005 and the others will be in service in 2006
- Ultra-Low Sulfur Diesel shipments through petroleum product pipelines will require:
  - Blending equipment at truck loading racks for ULSD lubricity additives
  - New rule on diesel lubricity standard could take effect in late 2005
  - KMP recently completed expansion of their pipeline between Concord and Sacramento
- California Impact: Additional storage capacity and pipeline expansion projects are expected as California's demand for transportation fuels continues to grow.



#### **Outlook: Retail**

- Approximately 9,500 retail stations in California new survey currently in planning stages. Station ownership:
  - Major company operated, 10%
  - Major lessee Dealers, 46%
  - Branded Independent Owned, 26%
  - Unbranded Independent owned, 18%
- Growth in gasoline hypermarkets at "big box" retailers
- Retail stations in California must now be in compliance with Phase 1 Vapor recovery rules
- Proposal to eliminate and prohibit all stations within 1000 feet of schools in South Coast Air Basin
- California Impact: Small volume retailers will have most difficulties.



#### **Outlook: On-Road Fuel Demand**

AB 1493 (Pavley) Filed with Secretary of State July 22, 2002

- Section 43018.5 is added to the Health and Safety Code, to read:
  - 43018.5. (a) No later than January 1, 2005, the state board shall develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles.
- California impact: Requires a nearly 30 percent cut in greenhouse gas emissions on all passenger vehicles, including light trucks and SUVs, sold in the state starting in 2016. Demand for gasoline could decline in the long-term.



### **Contact Information**

Pat Perez, Manager
Transportation Fuels Office
California Energy Commission
1516 Ninth Street, MS 23
Sacramento, CA 95814

www.energy.ca.gov

pperez@energy.state.ca.us